Best Time to Buy and Sell Stock - Java Version

Java Code:

```
class Solution {
    public int maxProfit(int[] prices) {
        int minP = prices[0];
        int maxP = 0;

        for (int i = 1; i < prices.length; i++) {
            minP = Math.min(minP, prices[i]);
            maxP = Math.max(maxP, prices[i] - minP);
        }

        return maxP;
    }
}
```

Dry Run & Notes:

```
Dry Run Example:
Input: prices = [7, 1, 5, 3, 6, 4]

Initial:
minP = 7
maxP = 0

Iteration:
i = 1 -> minP = min(7,1) = 1 -> maxP = max(0, 1-1) = 0
i = 2 -> minP = 1 -> maxP = max(0, 5-1) = 4
i = 3 -> minP = 1 -> maxP = max(4, 3-1) = 4
i = 4 -> minP = 1 -> maxP = max(4, 6-1) = 5
i = 5 -> minP = 1 -> maxP = max(5, 4-1) = 5

Final Result: 5 (Buy at 1, Sell at 6)

Notes:
- We track the minimum price so far and the maximum profit at each step.
- Time Complexity: O(n)
- Space Complexity: O(1)
- Elegant one-pass solution.
```